

ISSN: 2249-7137

Vol. 11, Issue 5, May 2021

Impact Factor: SJIF 2021 = 7.492



# ACADEMICIA An International Multidisciplinary Research Journal



(Double Blind Refereed & Peer Reviewed Journal)

## DOI: 10.5958/2249-7137.2021.01519.6

## CALCULATION OF SHAFTS BENDING VIBRATIONS

Muradov Akramjon Abdusattarovich\*; Rakhimberdiyev Dilmurod Obidkhon ogli\*\*

\*Associate Professor, Candidate of Technical Sciences, Namangan institute of engineering and Technology, UZBEKISTAN Email id: muradov-61@list.ru

\*\*Assistant, Namangan Institute of Engineering and Technology, UZBEKISTAN Email id: rakhimberdiyev.d@gmail.com

#### ABSTRACT

This article deals with the problem of calculating the vibration of the details of high-speed nonwoven fabric making machines. **Methods:** The brushes of the needle mechanisms of weaving machines provide direct needle movement. In the current machines, the needle rods are fixed to the beam. The brushes, in turn, are mounted on the shaft, which leads to the mechanism. **Conclusion:** When designing textile, light and cotton industrial machines, the dimensions of the parts and the materials for their manufacture should be chosen in such a way that the parts do not wear out and residual deformation under the influence of maximum stresses under normal operating conditions.

**KEYWORDS:** Nonwoven Fabric, Machine, Strength, Stiffness, Shaft, Bending, Krylov's Function, Deformation, Boundary Conditions, Shear Force, Bending Moment, Resonance, Frequency.

#### REFERENCES

- 1. Popov EA, Kvartin LM "Dynamics of textile machines" .- M .: MSTU-2001
- 2. Muradov AA Design of actuators for knitting and stitching machines "Economy and Society" No. 12 (67), 2019.



ISSN: 2249-7137 Vol. 11, Issue 5, May 2021

- **3.** Muradov AA, Pirnazarov AU Flexible joined needle mechanism for knitting stitch-bonding machines. "Actual scientific research in the modern world". 5 (25), 104-106, Ukraine. 2017, May
- **4.** Muradov A.A. "Research and development of looping mechanisms with elastic links for knitting and stitching machines." Diss. Cand. those. Sciences., -M., 1990.
- 5. Muradov A.A. Design of loop-forming systems for knitting and stitching machines. TashIIZhT Bulletin 2016 .№4
- 6. Muradov A.A. Rakhimberdiev D. The choice of design parameters of the spindles "Economy and Society" №12 (67), 2019
- **7.** A metalworker's handbook in five volumes. Mashgiz 1959. 5th volume page 3. edited by N.S. Acherkan.
- 8. Guzenkov P.G., "Machine parts". M.: Higher school, 1982.121-137s.
- 9. A.P. Filippov Oscillations of deformable systems.-M .: Mashinostroenie, 1990.-736 p.
- **10.** Vibration in technology. Reference book in 6 volumes. Volume-1. M .: Mashinostroenie, 1978.-352 p..